DOE ORDER # 4760 1

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DIST.	LTR	ENC
MARAL, M E		
BENJAMIN, A		
BERMAN, H S		
BRANCH, D B		
CARNIVAL, G J		
COPP, R D		
DAVIS, J G		
ERRERA, D W		
IANNI, B J		
JARMAN, L K		
HEALY, T J		
HEDAHL, T		
HILBIG, J G		
IRBY, W A		
LUESTER, A W		
MAHAFFEY, J W		
MANN, H P	✓	
MARX, G E		
McDONALD, M M		
McKENNA, F G		
MONTROSE, J K		
MORGAN, R V		
POTTER, G L		
PIZZUTO, V M		
RISING, T L		
SANDLIN, N B		
SETLOCK, G H		
STEWART, D L		
STIGER, S G	✓	
SULLIVAN, M T		
SWANSON, E R		
WILKINSON, R B	✓	
WILLIAMS, S (ORC)		
WILSON, J M		
WYANT, R B		
BUSBY, W S	Y	
LAKE, D Y Q		
Cowdery, C	✓	
Smith, S	✓	
✓ Peterman, B	✓	
GLOE, K		
CORRES CONTROL	X	X
RECORDS CTR (2)	X	X
ERM TRACKING		
TRAFFIC		

CLASSIFICATION

UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER SIGNATURE

DOCUMENT CLASSIFICATION REVIEW WAIVER PER

DATE CLASSIFICATION OFFICE

IN REPLY TO RFP CC NO

NA

ACTION ITEM STATUS

☐ PARTIAL/OPEN

☐ CLOSED

LTR APPROVALS

ORIG & TYPIST INITIALS

dql

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EG&G ROCKY FLATS

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ROCKY FLATS PLANT, P O BOX 464, GOLDEN COLORADO 80402 0464 (303) 966 7000

May 31, 1994

94-RF-05866

S Slaten
Project Manager
Environmental Restoration Division
DOE/RFFO

PROPOSED APPROACH TO OPERABLE UNIT 9 OUTSIDE PIPELINE INVESTIGATION – CDC-007-94

Attached is the proposed approach to the outside pipeline investigation at Operable Unit (OU) 9 This approach is currently being incorporated into the OU 9 Technical Memorandum #1, Field Sampling Plan, Volume II, Part A - Outside Pipelines It is requested that a meeting with the Colorado Department of Health and the Environmental Protection Agency be scheduled to discuss this approach before completion of the draft technical memorandum This could be combined with a meeting or workshop that is already planned or a new meeting could be scheduled If the Department of Energy (DOE) feels that a meeting is not mandated, then it is requested that the draft summary be revised and sent to the regulatory agencies

If you have any question regarding this information, please feel free to call me at extension 6953

C D Cowdery

C D Cowdery
Project Manager
Environmental Restoration Management

CDC tjr

Orig and 1 cc – S Slaten

Attachment
As Stated

Preliminary Draft

Proposed Approach for the Field Sampling Plan for Outside Pipeline Investigation at OU9 - Original Process Waste Lines

Phase I of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Resource Conservation and Recovery Act (RCRA) Remedial Investigation (RI)/RCRA Facility Investigation (RFI) of Operable Unit 9 (OU9) consists of investigating tanks and approximately 35,000 feet of pipeline that was used a part of the Original Process Waste Line (OPWL) system As specified in the OU9 Work Plan (DOE 1992), test pits were to be used to characterize the OPWL pipelines However, it is estimated that between 160 and 200 test pits would be required in the Industrial Area of the Rocky Flats Plant (RFP) The Work Plan requires test pits at pipeline end points, known structural features such as valve vaults, elbows, tees and reducers, pipe/tank connections, transitions in pipeline materials, and known or suspected release locations

The impacts (including costs, health and safety requirements, schedule, and security considerations) of digging 200 test pits in the Industrial Area has been evaluated and the practicality of that approach has been considered Primary factors that were considered are summarized below

- Test pits may be as deep as 15 feet or deeper for some pipelines which would require workers to enter them and hand dig portions of the pits above the pipe Test pits greater than 4 feet deep fall under OSHA requirements for shoring and confined space entry

- The Plan for the Prevention of Contaminant Dispersion may require use of engineering controls (such as housing over the test pit) to mitigate dust dispersion at all excavations Note that these measures are required to protect workers at the site and the members of the RFP population

- Some test pits locations would not be accessible for investigation due to proximity to security fences Roads in the Protected Area that must be kept accessible to security personnel could not be blocked by these activities

- All excavated soils from the test pits must be drummed This will result in significant amounts of drummed investigative derived material that require characterization, storage, and treatment or disposal

The OPWL was installed in the early 1950s and abandoned in the late 1970s Information on the pipeline structural features is lacking for much of the pipeline and for this reason test pits were originally chosen as the method of choice However, given the present calculation of 200 test pits and the major concerns listed above a modified approach is necessary Other locating/sampling techniques exist for investigating the OPWL that would be less invasive than test pits Many of these techniques are also described in the OU9 Work Plan

It is difficult to select one specific locating and/or sampling tool/method over another because of the different construction material of the pipelines, the depths to the pipeline, and site-specific factors such as proximity to building structural features and security concerns The more appropriate approach is to be able to choose among a

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variety of sampling methods, depending on the structural features of the pipeline and site-specific factors Many of these methods are included in the original Work Plan (video, pressure tests, magnetic detection, GPR, test pits, boreholes) There are some methods that could be used (such as geoprobes, robotics, gamma probes) that are not included in the Work Plan However, inclusion of these techniques would allow greater flexibility and could enhance the pipeline investigation

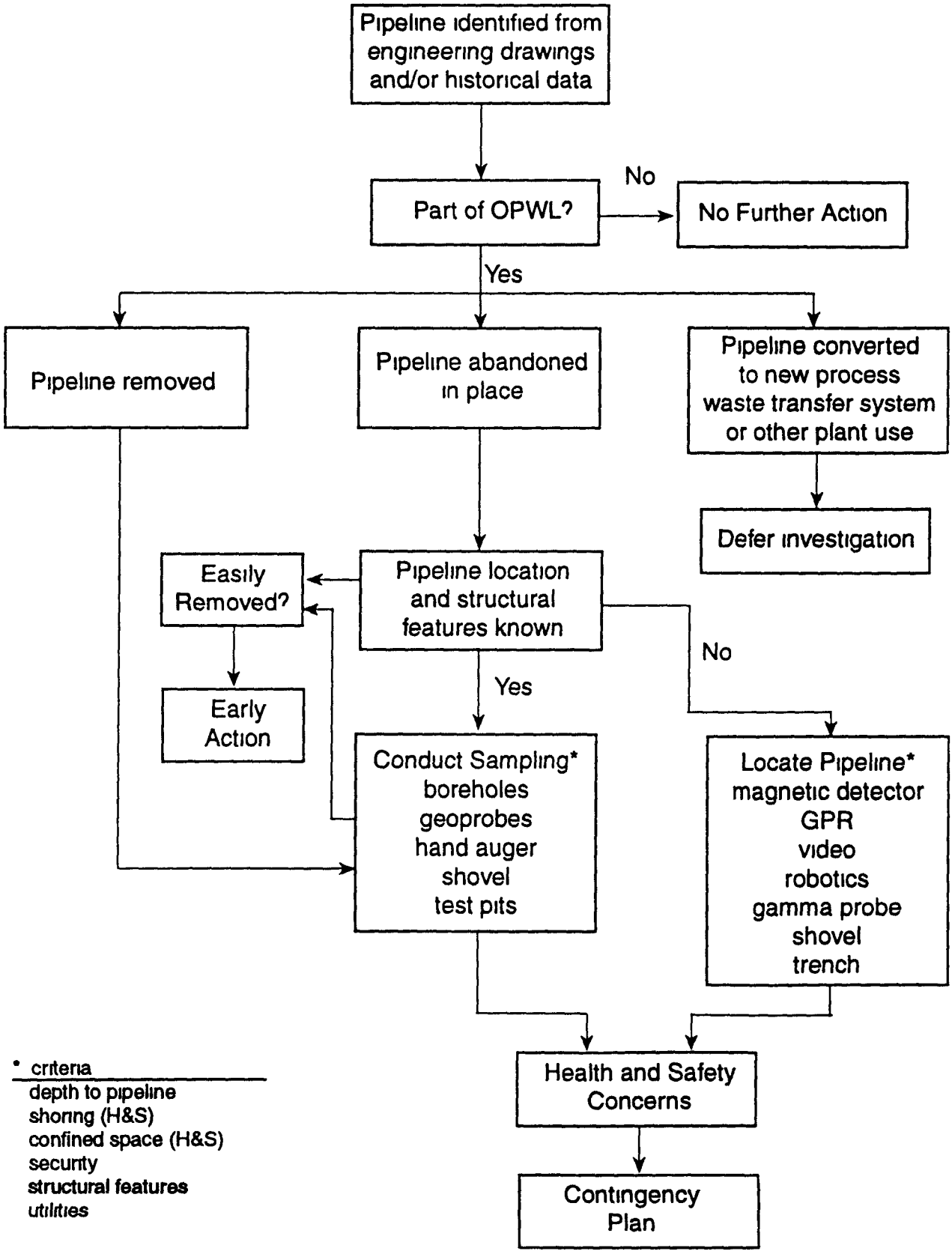
It is recommended that an observational approach be used to implement this work This approach allows the flexibility of using a variety of sampling techniques depending on the site-specific knowledge obtained in the field The observational approach will make it necessary to evaluate information in the field as it is generated and make decisions quickly based on this information Status reports will be used to document and report these decisions in a timely manner

A series of decision trees will be used to guide the investigation These decision trees will contain decision points and criteria for when a particular sampling technique will be used Attached is a preliminary decision tree that summarizes the field investigation approach for OU9 This approach does not preclude the use of test pits but will contain the criteria for when a test pit will be necessary or when alternative techniques can be used with better results, more efficient use of time, and less risk to human health

The use of the observational approach and flexibility in the use of other investigative techniques will still meet the data quality objectives presented in the original Work Plan

In summary, due to the impacts of excavating 200 test pits in the Industrial Area, a modified approach to field sampling of the OPWL pipeline in OU9 is necessary The modified approach will include a variety of sampling techniques that will be outlined in a decision tree Criteria for all sampling techniques will be in the decision tree The type of sampling to use at a specific pipeline will be made in the field based on site-specific knowledge obtained during the investigation The sampling approach shall be described in the Technical Memorandum No 1, Volume 2 - Pipelines to be submitted in late summer of 1994

Rocky Flats Plant Original Process Waste Lines (OPWL) - OU9
Summary of Field Investigation Approach - Pipelines



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